DOCUMENT RESUME

ED 220 558 UD 022 504

AUTHOR Cook, Stuart W.
TITLE Unresolved Issues of Cooperative Learning.
PUB DATE Sep 80
NOTE 17p.

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Academic Achievement; Competition; Elementary Secondary Education; *Group Behavior; *Group Membership; *Intergroup Relations; *Interpersonal Relationship; Minority Groups; Peer Teaching; *Racial Relations; *School Desegregation; Tutoring; Whites
IDENTIFIERS *Cooperative Learning

ABSTRACT

Proposals to use interracial/cross-ethnic learning teams in desegregated classrooms raise issues from research that demonstrate the complicated nature of the relationship between learning teams and classroom interracial relations. According to the research, relationships are affected by the characteristics of learning teams, namely competitiveness; group composition (usually of high achieving whites and lower achieving minorities); and the presence of a helping relationship where whites usually tutor their less well-prepared minority teammates. Various researchers indicate that positive interpersonal relationships encouraged by membership in groups are modified in competitive situations, when in-group relationships vary with team success or failure, and perceptions of other groups tend to become negative. In general, the interracial composition of learning teams and the tendency of competing teams to dislike one another lead to the expectation of minimal cross-racial friendship choices in desegregated classrooms. Conflicting findings have been found about the effect of white and minority students' relative academic competence and the helping relationships among interracial team members. Overall, however, research suggests pessimistic outcomes for cross-racial relationships in classrooms with learning teams. Yet, measures of friendship choices and classmate ratings indicate consistently improving cross-racial relations. The contradictory findings emphasize the need for more informative research on the issue. (Author/MJL)

**********
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
**********

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

STUART W. COOK

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproductinn quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

ED220558

# Unresolved Issues of Cooperative Learning

Stuart W. Cook
University of Colorado



UD 022 504

# UNRESOLVED ISSUES OF COOPERATIVE LEARNING

Stuart W. Cook
University of Colorado

As our chair has noted in his introductory remarks a theme running through SPSSI symposia at these meetings is the conflict between valid principles that may characterize efforts to apply scientific methods to social issues. I want to call your attention to three such apparent conflicts. I would like to examine with you whether the conflicts are real, and, if so, whether they are reconcilable.

The possible conflicts I have in mind arise in the use of interracial and cross ethnic learning teams in desegregated classrooms. This is the work that Dr. Slavin has just described. Before going farther I should emphasize, as I have on several other occasions, that I believe this work to be of tremendous importance. In my view it would be difficult to over-emphasize its potential for facilitating constructive outcomes of desegregation. In addition, of equal significance is what we may learn from the work that is of theoretical interest regarding such topics as motivation, helping behavior, social reinforcement, and, perhaps most important of all, restructuring normative expectations in social settings. Since I shall be raising questions about the research on learning teams I should note that I have had a small part in it myself and hope to continue my participation.

As background for my comments I would like you to recall three things from Dr. Slavin's description of learning teams. The first is that, with rare exceptions, teams compete with one another for some reward. The performance of individual team members is summed to a team score and team scores are compared at periodic intervals. The teams that do best receive favorable publicity and, sometimes, special privileges as well. The opposite, of course, is true of teams that do less well. They experience the disappointments and frustrations

of losing. Remember too that while, in desegregated classrooms, the members of one's own team come from other racial and ethnic groups, so do the members of the teams that one defeats or to whom one loses.

The second thing to recall from Dr. Slavin's description is that when learning teams are used in newly desegregated schools there will be, on the average, an association between minority status and lower academic achievement. Despite the fact that this disparity in achievement arises from economic deprivation and inferior prior schooling, it has the consequence that in the modal case the lower achieving members of learning teams will be minority students.

The third thing about learning teams that I would like to recall is that their members help one another. The team's score depends upon every member's performance and the rational course of action for team members is to tutor teammates who might otherwise lower the team's overall performance. Note also the relationship between this point and the one just made, namely that in newly desegregated schools the average academic achievement of white Anglo students will be more advanced than the average academic achievement of minority students. Aside from whatever direct consequences this difference may have, it means that more often than not the tutor or helper on a team will be a white Anglo while the tutored teammate will be from a minority group.

Why call attention to these three aspects of learning teams? What if learning teams are made up of better prepared white Anglos and less well prepared minority students, and are competing with one another, and are employing their higher achieving Anglo members to tutor their lesser achieving minority members? If they, nevertheless, promote the academic achievement of minority students and increase the proportion of cross racial friendships in classrooms, as Dr. Slavin has indicated, what more can we ask? To answer that question requires a closer look at the effect of three factors on interpersonal attraction. These factors are intergroup competition, relative competence, and helping behavior. My remarks in this paper will be divided into three sections corresponding to these

three factors.

What do we know about the effects of organization into and competition between groups upon social relationships? First, we know that the very act of assigning people to groups induces bias in favor of in-group members. Rabbie and his associates have shown that placing strangers in groups induces more favorable evaluations of one's groupmates than of those in other groups (Rabbie and Huygen, 1974; Sample and Botto, 1968). Similarly, Tajfel and his colleagues have found that the mere classification of strangers into groups evokes favoritism in the allocation of resources to co-members of ones own group (Tajfel, Billig, Bundy, and Flament, 1971; Billig, 1973; Tajfel and Billig, 1974). This phenomenon is not limited to the laboratory; it has been observed in field settings as well (Sole, Marton, and Hornstein, 1975).

The second thing we know about groups and social relationships is that when groups anticipate interacting with one another the evaluation of in-group members is even more favorable than when no such interaction is expected (Rabbie and Wilkins, 1971). Moreover, when the anticipated interaction is competition with another group the reaction to members of one's own group is even more favorable than when cooperation with another group is thought to be in prospect (Doise, Csepeli, Dann, Gouge, Larsen and Ostell, 1972; Kahn and Ryen, 1972, Study 1).

However, the fact that group membership, and especially membership in a group anticipating competition with another group, leads to more favorable evaluation of in-group than of out-group members says nothing about the level of evaluation of out-group members. It turns out, as a matter of fact, that under these conditions of minimal group membership, the more positive the ratings of members of one's own group the more positive are the ratings of out-group members, also. Studies by both Wilson (Wilson and Miller, 1961; Wilson, Chun and Kayatana, 1965; Wilson and Kayatana, 1968; Wilson, 1971) and

Rabbie (1974) have indicated this. The finding is by no means uniform, however. For example, when Dion (1973) experimentally increased the cohesion of groups, he obtained an expected increase in in-group liking but neither a positive nor a negative change in the derogation or exploitation of out-group members. Moreover, in a study by Druckman (1968) the obtained relationship was opposite the more general finding: in other words, the more favorable the rating of in-group members, the less favorable were evaluation of members of out-groups.

With the single exception of the Druckman study, then, the research to which I have referred thus far would lead one to expect membership in groups to have a positive effect on the relationships of in-group members and, possibly, on their evaluations of members of out-groups as well. The picture appears to change, however, when members of one group compete with those of another. In the 1950's and 1960's a number of field studies reported that competition between groups appeared to increase liking for in-group members and, concurrently, hostility to members of out-groups. These are the familiar camp studies of the Sherifs' (Sherif, 1953; Sherif, Harvey, White, Hood and Sherif, 1961) and the industrial workshop studies of Blake and Mouton (1961a, 1961b) and of Bass and Dunteman (1963).

Because these field studies potentially confounded the experience of competition with the experience of winning or losing as well as with that of positive versus negative types of interaction, they were followed up somewhat later by lab studies. For example, as a part of a broader study Worschel and his associates compared groups that competed with those that did not (Worschel, Andreoli and Folger, 1977). They found that members of competing groups showed greater in-group attraction than those of non-competing groups and, of special importance to this discussion, that members of competing groups evaluated out-group members less favorably than did members of non-competing groups. The latter result replicated the finding of a similar comparison of competing and non-competing groups by Dunn and Goldman (1966). However, an exception

occurs in another study using a before-and-after design. In this study there was no change following competition in the ratings of out-group members (Singer, Radloff and Wart, 1963). In-group liking did increase, however.

While some studies have attempted to remove the element of win versus lose from their research on competing groups, others have explicitly included it. Since learning team studies usually involve incentives and rewards for groups that excel or win, the win/lose or success/failure dimension of group competition studies is of importance to our analysis. The record seems quite clear. All studies that have compared groups that lose in competition to those that succeed, or to those that get ambiguous win/lose feedback, find lower attraction to groupmates under failure (Ryen and Kahn, 1975; Worschel, Lind and Kaufman, 1975; Blanchard, Adelman and Cook 1975; Blanchard, Weigel and Cook, 1975; Blanchard and Cook, 1976). The one study which has also examined attraction to out-group members found that as groups become increasingly successful in competition their evaluation of out-group members progressively drops (Kahn and Ryen, 1972, Study I). Conversely their ratings of their own groupmates progressively increases with level of success. Since competing teams make up the pool of classmates from which friendship choices are made, we should see a drop in such choices, accompanied by a concentration of choices of members of one's own team--at least, when one belongs to a winning team.

Overall this analysis seems to point to an inescapable conclusion. We should expect derogation and dislike from members of competing learning teams. As a consequence, since competing teams are made up of both white Anglo and minority students, there should be no increase in cross-racial or cross-ethnic friendship choices.

At this point I would like to leave the question of team competition and look at the second of the three factors I noted at the beginning of the paper, that is, the effect of relative competence on interpersonal attraction. As

background, recall the relative achievement levels of majority and minority students in newly-desegregated schools and the fact that learning teams in the classrooms of these schools would, on the average, be composed of more academically advanced white Anglos and less well prepared minority students. What consequences might this have?

The research results in the area of competence and interpersonal attraction have been quite consistent. When a stimulus person is presented to research subjects as having superior credentials she or he receives higher attraction ratings than does a counterpart whose credentials are mediocre (Aronson, Willerman, and Floyd, 1966; Helmrich, Aronson, and LeFan, 1970; Iverson, 1964). Similarly, when a participant in an experimental task is reported to have performed competently, that participant is liked better thar one who is reported as having performed less well (Berkowitz, Levy, and Harvey, 1957; Gilchrist, 1952; Shaw and Gilchrist, 1955; Stotland and Hilmer, 1962). When co-members of an interracial problem-solving group observe a teammate making mistakes and performing slowly, that teammate attracts less respect and liking than one who does his part of the group task without much difficulty (Blanchard, Weigel and Cook, 1975; Mumpower and Cook, 1980, in press; Cook and Pelfrey, in preparation). This finding has held true for ratings of black teammates in each of three experiments and for white teammates in two of the three.

What does all this imply with respect to the formation of cross-racial and cross-ethnic friendships in mixed learning teams? If, on the average, minority students are the academically less accomplished on these teams, we should expect liking for them to be depressed and should not expect them to appear in the list of friendship choices made by their Anglo teammates. Conversely, we might expect the reactions of minority students to be more favorable to their Anglo teammates who are more academically accomplished. But these expectations, as we shall see, are very much entangled with those

emerging from the third of the three factors under consideration, namely the helping behavior that characterizes learning teams.

The reactions to helping behavior must be looked at both from the perspective of the helper and that of the person helped. I shall begin with the latter since social scientists have devoted somewhat more attention to the reactions of the recipient of help than to those of the helper. First, it is certainly the common sense assumption that we like those who help us. Moreover, there is a long tradition of reinforcement theory to the effect that we associate pleasure, or relief from pain, with the sources responsible, including other persons. There has been at least one laboratory study confirming greater liking by recipients for helpers than non-helpers (Fisher and Nadler, 1974).

On the other hand, some disturbing questions have been raised about deviations from this generalization. One source of such questions has been interview studies of habitual help receivers. Disabled people (Ladieu, Hanfman, and Dembo, 1947) and those undergoing rehabilitation (Alger and Rusk, 1955) have been reported to resent help and to take offense at the helper. Similar reports are to be found in studies of the elderly (Lipman and Sterne, 1962), of the poor on welfare (Briar, 1966; Haggstrom, 1964), and of residents of nations who are the recipients of foreign aid (Gergen and Gergen, 1971). Some theorists (Broll, Gross and Piliavin, 1974) have pointed out the possible relevance of reactance theory to these observations. They reason that these types of aid occur at the initiative of the help giver and that reactance theory would predict that negative feelings toward assistance would be greatest when it was externally imposed. Gergen and his associates (Gergen, Morse and Kristeller, 1973) have suggested that when recipients dislike their helper, the underlying dynamic will be that the help caused a loss of self esteem.

Within the last 10 years a number of experimenters have tried to determine the conditions under which receiving help promotes or retards liking for the helper. As I review these experiments keep in mind the conditions of helping in interracial learning teams operating in newly desegregated schools.

To begin with, three studies have supported the idea that reciprocation of help is important. Recipients who are unable to reciprocate (Gross and Latané, 1974) or anticipate being unable to reciprocate (Greenberg and Shapiro, 1971) or who are not told by the helper that equivalent benefits are expected from them in return (Gergen, Ellsworth, Marlach and Seipel, 1975) like their helpers less than do those reciprocating the help or expecting to do so.

The second outcome of these studies has been the finding that a donor of help who is a peer and, in this sense, similar to the recipient, is liked less than a dissimilar helper (Fisher and Nadler, 1974). If we recall the nature of learning teams in newly desegregated schools it would appear that we have just described the situation of a minority group recipient of help, that is, a person receiving help from a peer but unlikely to anticipate being able to reciprocate that help.

However, nothing in our business is simple. Other findings make the situation look more favorable. For example, volunteered help of the sort that characterizes learning teams has twice been found to elicit more liking of the helper than does involuntary helping (Gross and Latané, 1974; Broll, Gross and Piliavin, 1974). Also, help from an ally--as in the case of a teammate--leads to a positive shift in feelings for the helper, whereas help from an opponent does not (Nadler, Fisher and Streufert, 1974). On the other hand, this last finding appears, at least superficially, to be in conflict with another finding to the effect that if aid is expected in advance, as it is from an ally, its arrival does not increase favorable perceptions of the donor (Morse and Gergen, 1971; Morse, 1972).

Of course, what we do not know as yet is the effect of the group context in modifying reactions to being helped. Possibly the experience is reinterpreted as helping the team achieve its goal and thereby loses the implication of personal inadequacy it usually carries in dyadic relationships outside of team settings. Until this is shown to be the case, however, we would have to predict that team members who were tutored or otherwise helped by their teammates, would tend to dislike them. Since we are postulating academic achievement differences that more often than not put the minority student in the position of being helped, we are led by this analysis to anticipate that minority members of teams will have negative reactions to their Anglo teammates.

What about the reactions of the helper to the teammate she or he helps? Here we face another possibility of unfavorable outcomes. When a white Anglo tutors a minority teammate, she or he may intepret the need for the tutoring as a confirmation of the customary negative stereotypes about the incompetence of minorities. If this happens, the result should be an unfavorable evaluation of the helped teammate by the helper. On the assumption that the helper in the school setting is more likely to be an Anglo, this translates to a low probability of a cross-racial friendship choice by such a student of an in-group minority classmate.

Fortunately the evidence available indicates this scenario is an unlikely one. Results of three studies of cooperating interracial teams have found no evidence of derogation by the helper of his or her less competent teammate. To the contrary, in one of the three studies the helper liked and respected his teammate more than did a non-helper evaluating an equally incompetent team member. In the others, research participants who helped poorly performing teammates liked them as well as did other participants who had such teammates but did not help them.(Blanchard and Cook, 1976; Mumpower and Cook, 1980, in press; Cook and Pelfrey, in preparation).

To summarize, the research relevant to group competition, competence, and receipt of help leads to pessimistic predictions about cross-racial and cross-ethnic relationships in classrooms where learning teams are employed. Yet, as we know, these relationships, as measured by cross-racial friendship choices and, to some extent, by classmate ratings, show consistent improvement. How can this be?

There appear to me to be two general possibilities. One is that the predictions are wrong. Or, if not wrong, they are like many other social science principles in that we have not yet specified sufficiently the circumstances under which they do or do not hold. I mentioned one such possibility when I wondered whether the team context eliminated the negative impact of receiving help by weakening the implication that receipt of help implied personal inadequacy.

The second possibility is that the predictions are correct and that if the negative effects of team competition, intra-team achievement differences, and one-sided help giving were eliminated, we would see much greater positive effects than we do now. Presumably to accept such an analysis we would have to assume first, that in order to have arrived at the result Dr. Slavin reported, determinants of interpersonal attraction other than the three factors I have examined were sufficiently weighty to produce overall positive effects despite the negative influence of the three factors. We would then face the task of discovering procedures that minimized or eliminated the hypothesized negative influences. For example, we might experiment with the number of teams to which students belong and the duration of their membership on each. Our hypothesis might be that frequent reconstitution of the membership of learning teams revitalizes the competitive motivation for achievement but inhibits fixing permanent "friend" and "enemy" labels on in-group and out-group classmates.

I suppose you are waiting for me to say that under such circumstances we can only conclude that more research is needed. This is true, of course. But the challenge is to choose informative research directions. Certainly one focus

should be on team competition. We should be able to determine whether team competition is inhibiting positive interracial and cross-ethnic relationships and, if so, how to remedy this while retaining the achievement motivation that team competition inspires. Perhaps another focus should be on ways of increasing the number of dimensions on which performance is evaluated in classrooms in order to mute the potential negative effects of one-dimensional academic achievement comparisons. I know of at least one social scientist, Elizabeth Cohen of Stanford, who is working along these lines in an approach she calls the multi-ability classroom.

Let me conclude by saying that to some extent I would characterize my presentation as an exercise in gilding the lily. I hope it does not detract in any way from the evaluation with which I began, namely that the research on interracial and cross-ethnic learning teams is of tremendous significance and should be pushed to the limit of our collective resources.

BIBLIOGRAPHY

Alger, I. and Rusk, H. The rejection of help by some disabled people. Archives of Physical Medicine Rehabilitation, 1955, 36, 277-281.

Aronson, E., Willerman, B., & Floyd, J. The effect of a pratfall on increasing interpersonal attractiveness. Psychonomic Science, 1966, 4, 227-228.

Bass, B.M. & Dunteman, G. Biases in the evaluation of one's own group, its allies and opponents. Journal of Conflict Resolution, 1963, 7, 16-20.

Berkowitz, L., Levy, B.I., & Harvey, A.R. Effects of performance evaluations on group integration and motivation. Human Relations, 1957, 10, 195-208.

Billig, M. Normative communication in a minimal intergroup situation. European Journal of Social Psychology, 1973, 3, 339-343.

Blake, R.R. & Mouton, J.S. Competition, communication and conformity. In I.A. Berg & B.M. Bass (Eds.), Conformity and Deviation. New York: Harper, 1961. (a)

Blake, R.R. & Mouton, J.S. Reactions to intergroup competition under win-lose conditions. Management Science, 1961, 7, 420-435. (b)

Blanchard, F.A., Adelman, L., & Cook, S.W. Effect of group success and failure upon interpersonal attraction in cooperating interracial groups. Journal of Personality and Social Psychology, 1975, 31, 1020-1030.

Blanchard, F.A. & Cook, S.W. Effects of helping a less competent member of a cooperating interracial group on the development of interpersonal attraction. Journal of Personality and Social Psychology, 1976, 34, 1245-1255.

Blanchard, F.A., Weigel, R.H., & Cook, S.W. The effect of relative competence of group members upon interpersonal attraction in cooperating interracial groups. Journal of Personality and Social Psychology, 1975, 32, 519-530.

Broll, L., Gross, A.E., and Piliaven, I. Effects of offered and requested help on help seeking and reactions to being helped. Journal of Applied Social Psychology, 1974, 4, 244-258.

Briar, S. Welfare from below. Recipients' views of the public welfare system. California Law Review, 1966, 54, 370-385.

Dion, K.L. Cohesiveness as a determinant of ingroup-outgroup bias. Journal of Personality and Social Psychology, 1973, 28, 163-171.

Doise, W., Csepeli, G., Dann, H.D., Gouge, C., Larsen, K., & Ostell, A. An experimental investigation into the formation of inter-group representations. European Journal of Social Psychology, 1973, 3, 145-157.

Druckman, D. Ethnocentrism in the Inter-Nation Simulation. Journal of Conflict Resolution, 1968, 12, 45-68.

Dunn, R.E. & Goldman, M. Competition and non-competition in relationship to satisfaction and feelings toward own-group and non-group members. Journal of Social Psychology, 1966, 68, 299-311.

Fisher, J.D. and Nadler, A. The effect of similarity between donor and recipient on recipient's reactions to aid. Journal of Applied Social Psychology, 1974, 4, 230-243.

Gergen, K.J., Ellsworth, P., Maslach, C. and Seipel, M. Obligation, donor resources, and reactions to aid in three cultures. Journal of Personality and Social Psychology, 1975, 31, 390-400.

Gergen, K.J. and Gergen, M. International assistance from a psychological perspective. 1971 Yearbook of World Affairs (Vol. 25). London: Institute of World Affairs, 1971.

Gergen, K.J., Morse, S.J., and Kristeller, J. The manner of giving: cross-national continuities in reaction to aid. Psychologia, 1973, 16, 121-131.

Gilchrist, J.C. The formation of social groups under conditions of success and failure. Journal of Abnormal and Social Psychology, 1952, 47, 174-187.

Greenberg, M.S. and Shapiro, S.P. Indebtedness: An adverse aspect of asking for and receiving help. Sociometry, 1971, 34, 290-301.

Gross, A.E. and Latané, J.G. Some effects of giving and receiving help. Journal of Applied Social Psychology, 1974, 3, 210-223.

Haggstrom, W.C. The power of the poor. In Reissman, et al (Eds.) Mental Health of the Poor. New York: The Free Press of Glencoe, 1964.

Helmreich, R., Aronson, E., & LeFou, J. To err is humanizing-sometimes: The effects of self-esteem, competence, and a pratfall on interpersonal attraction. Journal of Personality and Social Psychology, 1970, 16, 259-264.

Iverson, M.A. Personality impressions of punitive stimulus persons of differential status. Journal of Abnormal and Social Psychology, 1964, 68, 617-626.

Kahn, A.S. & Ryen, A.H. Factors influencing the bias towards one's own group. International Journal of Group Tensions, 1972, 2, 33-50.

Ladieu, G., Hanfman, E. and Dembo, T. Studies in adjustment to visible injuries: Evaluation of help by the injured. Journal of Abnormal and Social Psychology, 1947, 42, 169-192.

Lipman, A. and Sterne, R. Aging in the U.S.: Ascription of a terminal sick role. Sociology and Social Research, 1962, 53, 194-203.

Morse, S. Help, likeability and social influence. Journal of Applied Social Psychology, 1972, 2, 134-146.

Morse, S. and Gergen, K. Material aid and social attraction. Journal of Applied Social Psychology, 1971, 1, 150-212.

Mumpower, J.L. & Cook, S.W. The development of interpersonal attraction in cooperating interracial groups: The effects of success-failure, race and competence of groupmates, and helping a less competent groupmate. In press.

Nadler, A., Fisher, J.D. and Streufert, S. The donor's dilemma: Recipient's reactions to aid from friend or foe. Journal of Applied Social Psychology, 1974, 4, 275-285.

Rabbie, J.M. Effects of expected intergroup competition and cooperation. In A. Kahn (Chair), Development and Maintenance of Intergroup Bias. Symposium presented at the meeting of the American Psychological Association, New Orleans, September 1974.

Rabbie, J.M. & Huygen, K. Internal disagreements and their effects on attitudes toward in- and outgroup. International Journal of Group Tensions, 1974, 4, 222-246.

Rabbie, J. & Wilkens, C. Intergroup competition and its effect on intra- and intergroup relations. European Journal of Social Psychology, 1971, 1, 215-234.

Ryen, A.H. & Kahn, A. The effects of intergroup orientation on group attitudes and proxemic behavior: A test of two models. Journal of Personality and Social Psychology, 1975, 31, 302-310.

Sample, J.A. & Botto, R.W. Components of group interaction and their effects upon attitude toward own and other group. Unpublished manuscript, 1968.

Shaw, M.E. & Gilchrist, J.C. Repetitive task failure and sociometric choice. Journal of Abnormal and Social Psychology, 1955, 50, 29-32.

Sherif, M. The concept of reference groups in human relations. In M. Sherif & M.O. Wilson, (Eds.) Group Relations at the Crossroads. New York: Harper, 1953.

Sherif, M., Harvey, O.V., White, B.V., Hood, W.R. & Sherif, C.W. Intergroup - cooperation and competition: The Robger's Cave Experiment. Norman, Okla.: University Book Exchange, 1961.

Singer, J.E., Radloff, L.S. & Wark, D.M. Renegades, heretics, and changes in sentiment. Sociometry, 1963, 26, 178-179.

Sole, K., Marton, J. & Hornstein, H.A. Opinion similarity and helping: Three field experiments investigating the bases of promotive tension. Journal of Experimental Social Psychology, 1975, 11, 1-13.

Stotland, E. & Hilmer, M.L., Jr. Identification, authoritarian defensiveness, and self-esteem. Journal of Abnormal and Social Psychology, 1962, 64, 334-342.

Tajfel, H. & Billig, M. Familiarity and categorization in intergroup behavior. Journal of Experimental Social Psychology, 1974, 10, 159-170.

Tajfel, H., Billig, M.G., Bundy, R.P. & Flament, C. Social categorization and intergroup behavior. European Journal of Social Psychology, 1971, 1, 149-178.

Wilson, W. Reciprocation and other techniques for inducing cooperation in the prisoner's dilemma game. Journal of Conflict Resolution, 1971, 15, 167-195.

Wilson, W., Chun, N. & Kayatani, M. Projection, attraction, and strategy choices in intergroup competition. Journal of Personality and Social Psychology, 1965, 2, 432-435.

Wilson, W. & Kayatani, M. Intergroup attitudes and strategies in games between opponents of the same or different race. Journal of Personality and Social Psychology, 1968, 9, 24-30.

Wilson, W. & Miller, N. Shifts in evaluations of participants following intergroup competition. Journal of Abnormal and Social Psychology, 1961, 63, 428-431.

Worchel, S., Andreoli, V.A. & Folger, R. Intergroup cooperation and intergroup attraction: The effect of previous interaction and outcome of combined effort. Journal of Experimental Social Psychology, 1977, 13, 131-140.

Worchel, S., Lind, E. & Kaufman, K. Evaluations of group products as a function of expectations of group longevity, outcome of competition, and publicity of evaluations. Journal of Personality and Social Psychology, 1975, 31, 1089-1097.